# Ringing and migration at Ngulia, Tsavo, autumn 1991

### G. C. Backhurst and D. J. Pearson

Autumn 1991 was the 20th season of extensive ringing coverage at Ngulia. Although fewer birds were caught than in the previous best-ever year, operations were nevertheless very successful. A total of 9700 Palaearctic migrants of 33 species was ringed during 30 days of cover which spanned a period of six weeks.

Two sessions were involved, each centred on a new moon. Numbers of Palaearctic

migrants ringed in each session are compared in Table 1.

# First session: 5-16 November

At the start of this session the rains in Tsavo had still to begin. The first few nights were either clear or with cloud cover that never came down to the Lodge. Only 53 migrants were caught up to 10 November, mostly in daytime netting in the bush. Rain and associated night mist began on 11th, and the last five nights of the session then produced some good conditions and boosted the migrant ringing total to 2844.

Mid-November typically produces the best variety at Ngulia, with substantial numbers of some 'early' species which are less likely to occur later in the autumn (Backhurst & Pearson 1984). Some of these species featured prominently in the early session of 1991. Thus, Olive-tree Warblers<sup>1</sup> were particularly common, with 11 on 13th and an Ngulia daily record catch of 43 on 14th, when this was the third most numerous species. Olivaceous Warblers were also well represented, with 15 on 13th. Eurasian Nightiars were common on some nights, but catching success varied greatly. Thus 26 were ringed on 13th, but in thick mist two nights later, when even more were judged to be skimming the nets, not one was caught. Another early migrant, the Spotted Flycatcher, was in good numbers in mid-November (122 ringed), but Rufous Bush Chat (30) was less numerous than expected. Nightingale (29) and Red-backed Shrike (30) numbers were about average for recent years. Overall, the main bird in mid-November was the Whitethroat, easily outnumbering the other two major species (Table 1). The River Warbler, with a normal peak at the end of the month into early December, was nevertheless very poorly represented in the session with only 14 ringed, whereas the Irania, which typically peaks at the same time, occurred at its highest 1991 numbers (97) in mid-November. Finally, two Redstarts, on 13th and 15th, were only the fourth and fifth records for the Lodge.

### Second session: 30 November-17 December

During this small-moon period there were six nights with no mist and three with apparently perfect misty conditions but few birds grounded. Only seven nights produced large falls, and these accounted for most of the 6856 birds ringed. The three main species, Marsh Warbler (now predominant), Whitethroat and Sprosser were all in good numbers. River Warblers were caught steadily throughout the session, but numbers were modest for early December. Basra Reed Warblers, well spread through both ringing sessions, reached an impressive overall total of 80. Some 'scarce' Ngulia species ringed in December included a Little Bittern of the nominate race on 7th, Great Reed Warblers on 9th and 15th, seven Reed Warblers (three on 7th), and a Wood

<sup>1</sup> Scientific names are given in Tables 1 and 3

Table 1. Numbers of Palaearctic night migrants ringed at Ngulia Safari Lodge from December 1969 to December 1991 (between October and February each season)

Species	1991 first session	1991 second session	1991 total	%†	Total 1969– Dec 1991
Little Bittern Ixobrychus m. minutus	0	1	1		5
Black and White Cuckoo Oxylophus jacobinus	2	4	6	51	229
Eurasian Nightjar Caprimulgus europaeus	36	1	37	213	367
Eurasian Roller Coracias garrulus	0	3	3	89	69
Barn Swallow Hirundo rustica	49	14	63	684	238
Rufous Bush Chat Cercotrichas galactotes	30	9	39	81	965
Irania Irania gutturalis	97	79	176	159	2292
Sprosser Luscinia luscinia	382	1109	1491	116	26025
Nightingale L. megarhynchos	29	9	38	104	736
Rock Thrush Monticola saxatilis	10	2	12	125	195
Isabelline Wheatear Oenanthe isabellina	4	2	6	105	115
Northern Wheatear O. oenanthe	2	0	2	25	155
Pied Wheatear O. pleschanka	10	3	13	386	77
Redstart Phoenicurus phoenicurus	2	0	2	_	5
Great Reed Warbler Acrocephalus arundinacei	<i>us</i> 0	2	2	81	49
Basra Reed Warbler A. griseldis	28	52	80	178	935
Marsh Warbler A. palustris	681	3571	4252	198	45218
Reed Warbler A. scirpaceus	1	7	8	192	88
Icterine Warbler Hippolais icterina	0	1	1		6
Upcher's Warbler H. languida	15	15	30	152	407
Olive-tree Warbler H. olivetorum	67	2	69	336	462
Olivaceous Warbler H. pallida	46	6	52	212	521
River Warbler Locustella fluviatilis	14	163	177	91	3912
Wood Warbler Phylloscopus sibilatrix	0	1	1	_	8
Willow Warbler P. trochilus	37	72	109	111	1972
Blackcap Sylvia atricapilla	0	2	2	59	66
Garden Warbler S. borin	14	25	39	109	720
Whitethroat S. communis	1080	1618	2698	157	35502
Barred Warbler S. nisoria	32	32	64	176	760
Spotted Flycatcher Muscicapa striata	122	6	128	257	1074
Tree Pipit Anthus trivialis	1	1	2	131	31
Red-backed Shrike Lanius collurio	30	16	46	86	1062
Red-tailed Shrike L. isabellinus	23	28	51	109	945
Number of species	27	31	33		
Total ringed	2844	6856	9700		125244

 $\dagger$ The autumn 1991 total expressed as a percentage of the mean of the 19 years 1972–1973 to 1990–1991 for each species

Footnote to Table 1

Totals of Palaearctic species ringed in previous autumn sasons but not caught in autumn 1991 are as follows:

#### Footnote to Table 1 continued

Sprosser Luscinia luscinia

Night Heron Nycticorax nycticorax 1, Eleonora's Falcon Falco eleonorae 1, Corncrake Crex crex 9, Spotted Crake Porzana porzana 1, Great Snipe Gallinago media 1, Eurasian Cuckoo Cuculus canorus 2, Asian Lesser Cuckoo C. poliocephalus 4, Scops Owl Otus scops 6, Sand Martin Riparia riparia 6, Golden Oriole Oriolus oriolus 19, Whinchat Saxicola rubetra 3, Sedge Warbler Acrocephalus schoenobaenus 97, Savi's Warbler Locustella luscinioides 2, Chiffchaff Phylloscopus collybita 1, Red-throated Pipit Anthus cervinus 1, Yellow Wagtail Motacilla flava 3, hybrid shrike Lanius collurio x L. isabellinus 12.

From December 1969 a total of 130 531 Palaearctic night-migrating birds of 49 species (plus one hybrid) has been ringed at Ngulia during southward passage between October and February inclusive.

Warbler and an Icterine Warbler (also both on 7th). The Icterine was unusual in having the second primary shorter than the fifth, and was also small (winglength 73 mm) and bright yellow below.

### Recoveries, controls and retraps from previous seasons

The use of Stockholm Museum rings, begun in 1990 (Backhurst & Pearson 1992), was continued this year. It may be significant that six Ngulia-ringed birds with Stockholm rings have already been recovered abroad. Four of these are listed in Table 2, which gives details of recoveries, controls and subsequent season retraps from the 1991 ringing.

Table 2. Recoveries, controls and subsequent season retraps reported by July 1993 from the 1991 autumn Ngulia ringing

DPIOSSEI Last	DIEDEC COLD	CULLU						
Stockholm	3	09.12.91	Ngulia, 3°00S, 38°13E.					
2KE95677	+	00.04.92	<b>Lebanon–Israel</b> border, c. 33°10N, 35°20E, c. 4020 km, >113 d.					
Marsh Warbler Acrocephalus palustris								
Radolfzell	3	23.08.91	Karm, Mittelfranken, Germany, 49°09N, 11°18E.					
BZ90605	V	01.12.91	Ngulia, 6332 km, 100 d.					
Brussels	4	28.06.88	Eben-Emmal, Liège, Belgium, 50°48N, 5°40E.					
4-2980319	v	04.12.91	Ngulia, 6715 km, 1254 d.					
Stockholm	3	15.12.91	Ngulia.					
BC39646	+	25.01.92	Kabwe, <b>Zambia</b> , 14°29S, 28°25E, 1640 km, 41 d.					
Stockholm	3	01.12.91	Ngulia.					
BC35174	()	00.00.00	Kang'goma, Thyolo, Malawi, 16°30S, 35°07E, 1538 km.					
All attempts to	discover	the date of	recovery of BC35174 have failed: the finding date was					

given as October 1991 (i.e. before the bird was ringed) but it is considered more likely to have been in April 1992 when the recovery was actually reported, initially to the South African ringing authorities. Thanks to Terry Oately of SAFRING for his efforts on this recovery.

### Olivaceous Warbler Hippolais pallida

Nairobi 3 11.12.88 Ngulia.

X65255 v 17.12.91 Ngulia, 1101 d.

In active primary moult when ringed and retrapped, respective states were N3O8, and N32O7.

#### Whitethroat Sylvia communis

Stockholm 4 12.11.91 Ngulia.

BA61617 + 07.09.92 Riyadh, **Saudi Arabia**, 24°39N, 46°46E, 3210 km,

300 d.

# Spotted Flycatcher Muscicapa striata

Stockholm 4 20.11.90 Ngulia.

BA51418 v 04.12.91 Ngulia, 379 d.

Stockholm 4 21.11.90 Ngulia.

BA52453 v 06.12.91 Ngulia, 380 d.

The first of these birds was in the virtually the same stage of active primary moult when ringed and retrapped (allowing for the two-week extra time over the one year), respective states were O<sup>7</sup>23O, and O<sup>5</sup>123N<sup>2</sup>. The second bird was not moulting when ringed but had O<sup>7</sup>1<sup>3</sup> when retrapped.

# Afrotropical species

It has always been surprising that so few Afrotropical migrants accompany the main southward Palaearctic passage at Ngulia. A list of the Afrotropicals ringed this season is given in Table 3, but very few of them are known migrants. Numbers of Harlequin Quail were very low, and nightjars too were poorly represented. The Gambaga Flycatcher caught at night on 13 November was the fifth for Ngulia, but the first adult. The Black Cuckoo Shrikes caught the previous day were the first ever adult males.

#### Mist and birds

Night migrants are attracted to the bright game-viewing lights of Ngulia Safari Lodge when there is mist (= low cloud), and when the moon has either not risen or has already set. Numbers of birds are usually lower in conditions of thick fog, especially if these are established before the moon sets. We have noticed, however, that on some moonless nights with 'perfect' mist—low and not too dense—numbers of birds have been far less than we would have expected. Various explanations have been suggested. Thus, if cloud is thick altitudinally and also stretches far to the north it would follow that the attractive effect of the lights must be reduced. On other occasions, particularly late in the season when migration volume would vary more, there are presumably nights with little traffic overhead. On 17 December 1991, the mist at night had been 'perfect' and by no means too thick but few birds were attracted. At first light it was noticed, through gaps in the mist, that there was a layer of continuous high cloud far above. The bulk of

Table 3. Afrotropical species ringed at Ngulia during the 1991 autumn. At least some examples of birds printed in bold type have been caught at night. An asterisk denotes a species new for the Ngulia ringing list

Species/total:	1991/92	1969–92
Harlequin Quail Coturnix delegorguei	17	1147
Common Button Quail Turnix sylvatica	2	43
Laughing Dove Streptopelia senegalensis	2	70
Emerald-spotted Wood Dove Turtur chalcospilos	1	24
Didric Cuckoo Chrysococcyx caprius	2	160
White-browed Coucal Centropus superciliosus	3	9
Slender-tailed Nightjar Caprimulgus clarus	1	57
Donaldson-Smith's Nightjar C. donaldsoni	8	166
Dusky Nightjar C. fraenatus	2	62
Plain Nightjar C. inornatus	18	180
Little Swift Apus affinis	4	6
Grey-headed Kingfisher Halcyon leucocephala	1	26
d'Arnaud's Barbet Trachyphonus darnaudii	2	47
Striped Swallow Hirundo abyssinica	7	77
*African Rock Martin H. fuligula	1	1
Black Cuckoo Shrike Campephaga flava	3	17
Zanzibar Sombre Greenbul Andropadus importunus	3	15
*Yellow-bellied Greenbul Chlorocichla flaviventris	1	1
Northern Brownbul Phyllastrephus strepitans	2	5
Common Bulbul Pycnonotus barbatus	45	103
Grey-backed Camaroptera Camaroptera brachyura	3	39
Rattling Cisticola Cisticola chiniana	4	40
Winding Cisticola C. galactotes	1	2 15
Tawny-flanked Prinia Prinia subflava	1	5
Gambaga Flycatcher Muscicapa gambagae	1	14
Paradise Flycatcher Terpsiphone viridis	4	13
Black-backed Puffback Dryoscopus cubla	2	17
Slate-coloured Boubou Laniarius funebris	1	4
Grey-headed Bush Shrike Malaconotus blanchoti Sulphur-breasted Bush Shrike M. sulfureopectus	4	9
Brown-headed Tchagra Tchagra australis	ĭ	3
White-crowned Shrike Eurocephalus rueppelli	1	9
Wattled Starling Creatophora cinerea	4	30
Superb Starling Spreo superbus	3	7
Collared Sunbird Anthreptes collaris	2	8
Amethyst Sunbird Nectarinia amethystina	3	22
Abyssinian White-eye Zosterops abyssinica	3	37
Black-headed Weaver Ploceus cucullatus	1	44
Grey-headed Sparrow Passer griseus	2	10
Crimson-rumped Waxbill Estrilda rhodopyga	1	11
*Peters' Twinspot Hypargos niveoguttatus	2	2
Jameson's Firefinch Lagonosticta rhodopareia	5	41
Green-winged Pytilia Pytilia melba	3	92
Red-cheeked Cordon-bleu Uraeginthus bengalus	6	65
Purple Grenadier U. ianthinogaster	3	10

Species/total:	1991/92	1969–92
*Bronze Mannikin Lonchura cucullata Somali Golden-breasted Bunting Emberiza poliopleura Yellow-rumped Seed-eater Serinus atrogularis	1 1 2	1 23 8
Totals	196	2797

In addition, 3203 individuals of a further 91 Afrotropical species have been ringed in previous autumn seasons at Ngulia making a grand total when added to those listed above of 3399 individuals of 139 species.

the overflying birds may well have passed above that higher cloud, far out of range of the attraction of the Lodge lights.

# Acknowledgements

We are most grateful to the Kenya Wildlife Service, in particular Dr Richard Leakey, Mr Joe Kioko and the Warden of Tsavo West National Park, for allowing ringing to continue at Ngulia. The management and staff of the Lodge and African Tours & Hotels Limited—particularly Mr Philip Tenai, the Lodge Manager—as usual, were most helpful. We also thank Bengt-Olov Stolt and the Swedish Ringing Centre for letting us use their rings and for forwarding recovery details promptly.

Members of the Ngulia Ringing Group this year, in addition to the authors, were Tony and Betty Archer, Daphne Backhurst†, Nigel Cleere, Miles Coverdale, Brian Finch, Anna Forbes-Watson, Bernat Garrigós, Dennis Hasselquist, Peter and Diane Lack, Jerry Lewis, John McEachen, David Murdoch, Peter Pilkington, Nigel Redman, Lyndon Roberts, Ian Robertson, Kath Shurcliff, Tristan Voorspuy, Judy Wells, and Brian and Linda Whitby. We regret to record the death of Daphne Backhurst on 22 November. She had been coming to Ngulia since 1969.

#### References

- Backhurst, G. C. & Pearson, D. J. 1984. The timing of the southward night migration of Palaearctic birds over Ngulia, southeast Kenya. *Proceedings of the Fifth Pan-African Ornithological Congress*: 361–369.
- BACKHURST, G. C. & PEARSON, D. J. 1992. Ringing and migration at Ngulia, Tsavo, autumn 1990. Scopus 14: 159–164.
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